



National Weather Service

Storm Data and Unusual Weather Phenomena



September 1999

| Location | Date | Time Local/ Standard | Path Length (Miles) | Path Width (Yards) | Killed | Persons Injured | Estimated Damage Property | Crops | Character of Storm |
|----------|------|----------------------------|---------------------------|--------------------------|--------|--------------------|---------------------------------|-------|--------------------|
|----------|------|----------------------------|---------------------------|--------------------------|--------|--------------------|---------------------------------|-------|--------------------|

CONNECTICUT, Northeast

CTZ002

Hartford

07 0000EST
09 2359EST

0 0

Record Warmth

Record warm low temperatures were set or equaled at Bradley International Airport in Windsor Locks.

The low temperature of 71 degrees on the 7th broke the previous record of 68 degrees, which was set in 1943. On the 8th, the low of 72 degrees broke the previous record of 70 degrees, set in 1916. And on the 9th, the low of 70 degrees tied the record which was set in 1992.

Hartford County

Bristol

10 0700EST
1900EST

0 0

Heavy Rain

Tolland County

Stafford

10 0700EST
1900EST

0 0

Heavy Rain

Windham County

Ashford

10 0700EST
1900EST

0 0

Heavy Rain

A slow moving cold front, combined with tropical moisture arriving from the south, resulted in heavy rainfall across northern Connecticut. The heaviest rain fell in Hartford County, west of the Connecticut River, where totals of up to 4 inches were reported, including 3.57 inches in Bristol. Amounts elsewhere averaged between 2 and 3 inches. No flooding was reported. The rainfall total of 2.78 inches at Bradley International Airport set a new daily rainfall record

CTZ002-002

Hartford

16 0313EST
19 1946EST

0 0

Flood

Farmington River

Hartford County

Countywide

16 1400EST
17 1300EST

0 0

Heavy Rain

Tolland County

Countywide

16 1400EST
17 1300EST

0 0

Heavy Rain

Windham County

Countywide

16 1400EST
17 1300EST

0 0

Heavy Rain

Hartford County

Southington

16 1640EST
18 0443EST

0 0

Flood

Quinnipiac River

Hartford County

Burlington

16 1817EST
17 0231EST

0 0

Flood

Burlington Brook

CTZ002>004

Hartford - Tolland - Windham

16 2000EST
17 0300EST

0 0

Strong Wind

Hartford County

Hartford

16 2000EST
17 1000EST

0 0

Flood

North Branch Park River

Tropical Storm Floyd brought torrential rainfall and strong winds to northern Connecticut, as it tracked up the Connecticut River valley into central Massachusetts. Although many areas received torrential rainfall, with totals between 4 and 8 inches, the heaviest rain fell in western Hartford County where as much as 10.80 inches was reported in Bristol. The rainfall produced widespread flooding of low lying areas, especially in Hartford County. Smaller rivers such as the Quinnipiac, North Branch Park, and Burlington Brook rose rapidly out of their banks as the heavy rain arrives late in the afternoon and early in the evening on the 16th.



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|----------|------|----------------------------|---------------------------|--------------------------|----------------------|---------|---------------------|-------|--------------------|
| | | | | | Killed | Injured | Property | Crops | |

CONNECTICUT, Northeast

Crests of 2 to 3 feet above flood stage occurred by daybreak on the 17th. The Farmington River went into flood at Unionville from 11 pm on the 16th to 413 am on the 17th, cresting a foot above flood stage at 1 am on the 17th. At Simsbury, the Farmington went into flood at 715 am on the 17th and crested about a foot over flood stage at 930 pm on the 17th, before returning to its banks at 215 pm on the 18th. The longer responding Connecticut River rose out of its banks in Hartford at 1259 am on the 18th, and crested at 17.2 feet at 130 pm on the 19th, which is about a foot over its 16 foot flood stage. It returned to its banks at 132 am on the 19th. Farther downstream at Middletown, the Connecticut went into flood at 1050 am on the 18th, and crested at 8.8 feet at 1115 am on the 19th, almost a foot above its 8 foot flood stage. It returned to its banks at 846 pm that same day. Surprisingly, no flood damage was reported, even in those areas where the smaller rivers rose rapidly.

Strong winds were also felt in northern Connecticut as Floyd passed. There were scattered reports of small trees or branches downed, which did not cause significant damage.

MASSACHUSETTS, Central and East

MAZ012-015>016

Southern Worcester - Suffolk - Eastern Norfolk

| | | | | |
|-----------|----------------|----------|----------|----------------------|
| 07 | 0000EST | 0 | 0 | Record Warmth |
| 09 | 2359EST | | | |

Record warm minimum temperatures were set at the Blue Hill Observatory in Milton, and in Boston and Worcester. On the 7th, the low temperature of 70 degrees at the Blue Hill Observatory broke the previous record high minimum temperature of 68 degrees, which was set in 1943.

Low temperatures at the Blue Hill Observatory only fell to 69 degrees on the 8th and 9th, which broke the previous record warm minimum temperatures of 68 degrees in 1943, and 68 degrees in 1936, respectively.

At Logan International Airport in Boston, the low temperature of 71 degrees on the 8th tied the record warm minimum temperature which was set in 1945, while the low of 72 degrees on the 9th broke the previous record warm minimum temperature of 70 degrees set in 1884.

In Worcester, low temperatures fell to 69 degrees on both the 8th and the 9th. This tied the record warm minimum temperatures for both dates, which were set in 1915.

Bristol County

| | | | | | |
|---------------|-----------|----------------------------------|----------|----------|-------------------|
| Norton | 10 | 0700EST 1900EST | 0 | 0 | Heavy Rain |
|---------------|-----------|----------------------------------|----------|----------|-------------------|

Essex County

| | | | | | |
|-------------------|-----------|----------------------------------|----------|----------|-------------------|
| Manchester | 10 | 0700EST 1900EST | 0 | 0 | Heavy Rain |
|-------------------|-----------|----------------------------------|----------|----------|-------------------|

Hampden County

| | | | | | |
|------------------|-----------|----------------------------------|----------|----------|-------------------|
| Wilbraham | 10 | 0700EST 1900EST | 0 | 0 | Heavy Rain |
|------------------|-----------|----------------------------------|----------|----------|-------------------|

Middlesex County

| | | | | | |
|----------------|-----------|----------------------------------|----------|----------|-------------------|
| Wayland | 10 | 0700EST 1900EST | 0 | 0 | Heavy Rain |
|----------------|-----------|----------------------------------|----------|----------|-------------------|

Norfolk County

| | | | | | |
|-----------------|-----------|----------------------------------|----------|----------|-------------------|
| Franklin | 10 | 0700EST 1900EST | 0 | 0 | Heavy Rain |
|-----------------|-----------|----------------------------------|----------|----------|-------------------|

Suffolk County

| | | | | | |
|-----------------------------|-----------|----------------------------------|----------|----------|-------------------|
| (Bos)Logan Intl Arpt | 10 | 0700EST 1900EST | 0 | 0 | Heavy Rain |
|-----------------------------|-----------|----------------------------------|----------|----------|-------------------|

Worcester County

| | | | | | |
|-------------------|-----------|----------------------------------|----------|----------|-------------------|
| Blackstone | 10 | 0700EST 1900EST | 0 | 0 | Heavy Rain |
|-------------------|-----------|----------------------------------|----------|----------|-------------------|



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|----------|------|----------------------------|---------------------------|--------------------------|----------------------|---------|---------------------|-------|--------------------|
| | | | | | Killed | Injured | Property | Crops | |

MASSACHUSETTS, Central and East

Middlesex County

| | | | | | | | | | |
|----------------------|----|--------------------|--|--|---|---|--|--|-------------|
| Newton to Framingham | 10 | 1845EST 2100EST | | | 0 | 0 | | | Flash Flood |
|----------------------|----|--------------------|--|--|---|---|--|--|-------------|

Suffolk County

| | | | | | | | | | |
|--------|----------|--------------------|--|--|---|---|--|--|-------------|
| Boston | 10 11 | 2300EST 0300EST | | | 0 | 0 | | | Flash Flood |
|--------|----------|--------------------|--|--|---|---|--|--|-------------|

A slow moving cold front, combined with a plume of tropical moisture moving in from the south, combined to bring heavy rainfall to much of central and eastern Massachusetts. The heaviest rainfall was centered along the Interstate 495 corridor in Norfolk, Worcester, and Middlesex Counties where totals of 5 to 6 inches were common. As much as 6.60 inches fell in Franklin. Totals elsewhere generally averaged between 3 and 5 inches.

The heavy rain caused significant urban and poor drainage flooding. In Boston, the 4.71 inches of rain which fell set a new daily rainfall record at Logan International Airport. The Central Artery and portions of Morrissey Boulevard and Quincy Shore Drive were submerged under feet of water and shut down. There were numerous reports of flooded homes in Newton, Natick, and Framingham, all in Middlesex County. Portions of Route 9 in Framingham were submerged under feet of water. In Worcester County, the 2.35 inches of rain that fell at Worcester Airport set a new daily rainfall record.

Barnstable County

| | | | | | | | | | |
|------------|----------|--------------------|--|--|---|---|--|--|------------|
| Countywide | 16 17 | 1400EST 0300EST | | | 0 | 0 | | | Heavy Rain |
|------------|----------|--------------------|--|--|---|---|--|--|------------|

Bristol County

| | | | | | | | | | |
|------------|----------|--------------------|--|--|---|---|--|--|------------|
| Countywide | 16 17 | 1400EST 0300EST | | | 0 | 0 | | | Heavy Rain |
|------------|----------|--------------------|--|--|---|---|--|--|------------|

Essex County

| | | | | | | | | | |
|------------|----------|--------------------|--|--|---|---|--|--|------------|
| Countywide | 16 17 | 1400EST 0300EST | | | 0 | 0 | | | Heavy Rain |
|------------|----------|--------------------|--|--|---|---|--|--|------------|

Franklin County

| | | | | | | | | | |
|------------|----------|--------------------|--|--|---|---|--|--|------------|
| Countywide | 16 17 | 1400EST 0300EST | | | 0 | 0 | | | Heavy Rain |
|------------|----------|--------------------|--|--|---|---|--|--|------------|

Hampden County

| | | | | | | | | | |
|------------|----------|--------------------|--|--|---|---|--|--|------------|
| Countywide | 16 17 | 1400EST 0300EST | | | 0 | 0 | | | Heavy Rain |
|------------|----------|--------------------|--|--|---|---|--|--|------------|

Hampshire County

| | | | | | | | | | |
|------------|----------|--------------------|--|--|---|---|--|--|------------|
| Countywide | 16 17 | 1400EST 0300EST | | | 0 | 0 | | | Heavy Rain |
|------------|----------|--------------------|--|--|---|---|--|--|------------|

Middlesex County

| | | | | | | | | | |
|------------|----------|--------------------|--|--|---|---|--|--|------------|
| Countywide | 16 17 | 1400EST 0300EST | | | 0 | 0 | | | Heavy Rain |
|------------|----------|--------------------|--|--|---|---|--|--|------------|

Norfolk County

| | | | | | | | | | |
|------------|----------|--------------------|--|--|---|---|--|--|------------|
| Countywide | 16 17 | 1400EST 0300EST | | | 0 | 0 | | | Heavy Rain |
|------------|----------|--------------------|--|--|---|---|--|--|------------|

Plymouth County

| | | | | | | | | | |
|------------|----------|--------------------|--|--|---|---|--|--|------------|
| Countywide | 16 17 | 1400EST 0300EST | | | 0 | 0 | | | Heavy Rain |
|------------|----------|--------------------|--|--|---|---|--|--|------------|

Suffolk County

| | | | | | | | | | |
|------------|----------|--------------------|--|--|---|---|--|--|------------|
| Countywide | 16 17 | 1400EST 0300EST | | | 0 | 0 | | | Heavy Rain |
|------------|----------|--------------------|--|--|---|---|--|--|------------|

Worcester County

| | | | | | | | | | |
|------------|----------|--------------------|--|--|---|---|--|--|------------|
| Countywide | 16 17 | 1400EST 0300EST | | | 0 | 0 | | | Heavy Rain |
|------------|----------|--------------------|--|--|---|---|--|--|------------|



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|----------|------|----------------------------|---------------------------|--------------------------|----------------------|---------|---------------------|-------|--------------------|
| | | | | | Killed | Injured | Property | Crops | |

MASSACHUSETTS, Central and East

MAZ003>005-009>011-019>020-022>023 Eastern Franklin - Northern Worcester - Western Middlesex - Western Hampden - Eastern Hampshire - Eastern Hampden - Eastern Plymouth - Southern Bristol - Barnstable - Dukes

| | | | | |
|----|---------|---|---|-----------------|
| 16 | 1600EST | 0 | 0 | High Wind (G63) |
| 17 | 0300EST | | | |

MAZ002-006>008-012>018-021 Western Franklin - Western Essex - Eastern Essex - Western Hampshire - Southern Worcester - Western Norfolk - Southeast Middlesex - Suffolk - Eastern Norfolk - Northern Bristol - Western Plymouth - Southern Plymouth

| | | | | |
|----|---------|---|---|-------------|
| 16 | 1800EST | 0 | 0 | Strong Wind |
| 17 | 0100EST | | | |

Middlesex County

Winchester

| | | | | |
|----|---------|---|---|-------|
| 16 | 2045EST | 0 | 0 | Flood |
| | 2100EST | | | |

Aberjona River

MAZ011

Eastern Hampden

| | | | | |
|----|---------|---|---|-------|
| 16 | 2300EST | 0 | 0 | Flood |
| 17 | 0000EST | | | |

Westfield River

Tropical Storm Floyd brought high winds and torrential rainfall to Massachusetts as it tracked from northern Connecticut into central and northeast Massachusetts during the late evening and early morning hours of the 16th and 17th. Although many areas received strong winds, the strongest winds were confined to the higher elevations of western Massachusetts, as well as Cape Cod and the islands. Gusts of 60 to 70 mph were common along the south coast, but the New Bedford Hurricane Barrier reported a gust to 76 mph. There were many reports of downed trees and power lines in these two areas. Damage was not as widespread throughout central and eastern Massachusetts, where winds generally gusted to 40 to 50 mph.

Floyd also brought torrential rainfall to the Bay State. The heaviest rain fell over the Connecticut River Valley, to the left of the track of the center, where totals of 6 to 10 inches were common. Southwick reported 9.16 inches of rain, Whately had 7.70 inches, and Millers Falls had 6.20 inches. The heavy rain caused the Westfield River at Westfield to rise out of its banks for a brief period. It crested at 13.1 feet at 12:30 am on the 17th, which was just over its 13 foot flood stage. Many small streams rose out of their banks in western Massachusetts and flooded nearby low lying areas. No flood damage was reported.

MAZ020>023

Southern Bristol - Southern Plymouth - Barnstable - Dukes

| | | | | |
|----|---------|---|---|-------------|
| 30 | 0900EST | 0 | 0 | Strong Wind |
| | 1400EST | | | |

Strong south winds ahead of an approaching cold front gusted to near 50 mph across southeast Massachusetts. The New Bedford Hurricane Barrier reported a gust to 51 mph, while the Buzzards Bay entrance tower, which is elevated, had a gust to 58 mph. Sustained winds averaged 30 to 40 mph over most of the region as well. There were no reports of damage.

NEW HAMPSHIRE, Southern

Cheshire County

Countywide

| | | | | |
|----|---------|---|---|------------|
| 16 | 1700EST | 0 | 0 | Heavy Rain |
| 17 | 0300EST | | | |

Hillsborough County

Countywide

| | | | | |
|----|---------|---|---|------------|
| 16 | 1700EST | 0 | 0 | Heavy Rain |
| 17 | 0300EST | | | |

NHZ011

Cheshire

| | | | | |
|----|---------|---|---|-------------|
| 16 | 2051EST | 0 | 0 | Strong Wind |
|----|---------|---|---|-------------|

Tropical Storm Floyd brought torrential rainfall and strong winds to southern New Hampshire, as it tracked from Northern Connecticut into central and northeast Massachusetts. Rainfall totals of 3 to 5 inches were common throughout Cheshire and



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|----------|------|----------------------------|---------------------------|--------------------------|--------------------------------|---------------------------------|---------------------------------|------------------------------|--------------------|
|----------|------|----------------------------|---------------------------|--------------------------|--------------------------------|---------------------------------|---------------------------------|------------------------------|--------------------|

NEW HAMPSHIRE, Southern

Hillsborough Counties, but amounts of 6 to 7 inches were observed in Hillsborough County from Greenville to Weare and Francetown. No flooding was reported, aside from low lying areas. The Piscataquog River at Goffstown came right up to its 9 foot flood stage, cresting at 8.9 feet at 315 pm on the 17th. Strong winds produced by Floyd brought down several small trees in Jaffrey.

RHODE ISLAND

RIZ004

Eastern Kent

07 0000EST
09 2359EST

0 0

Record Warmth

Record warm minimum temperatures were set at T.F. Green State Airport in Warwick. The low temperature of 73 degrees on the 7th broke the previous record of 71 degrees set in 1983. The low temperatures of 72 degrees on both the 8th and 9th broke the records of 70 degrees in 1936, and 70 degrees in 1992, respectively.

Bristol County

Bristol

10 0700EST
1900EST

0 0

Heavy Rain

Kent County

Coventry

10 0700EST
1900EST

0 0

Heavy Rain

Newport County

Portsmouth

10 0700EST
1900EST

0 0

Heavy Rain

Providence County

Cumberland

10 0700EST
1900EST

0 0

Heavy Rain

Washington County

Charleston Beach

10 0700EST
1900EST

0 0

Heavy Rain

Providence County

Smithfield

10 1945EST
2145EST

0 0

Flash Flood

Woonasquatucket River

A slow moving cold front, combined with tropical moisture arriving from the south, produced heavy rainfall throughout Rhode Island. The heaviest rain fell over northern Providence County, where totals of 6 to 7 inches were reported, including 6.81 inches in Johnston. Other areas received between 2 and 5 inches of rain. In Smithfield, in Providence County, heavy rainfall brought the Woonasquatucket River out of its banks and onto Route 104. No property damage was reported

Bristol County

Countywide

16 1500EST
17 0200EST

0 0

Heavy Rain

Kent County

Countywide

16 1500EST
17 0200EST

0 0

Heavy Rain

Newport County

Countywide

16 1500EST
17 0200EST

0 0

Heavy Rain

Providence County

Countywide

16 1500EST
17 0200EST

0 0

Heavy Rain

Washington County

Countywide

16 1500EST
17 0200EST

0 0

Heavy Rain



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|----------|------|----------------------------|---------------------------|--------------------------|--------------------------------|---------------------------------|---------------------------------|------------------------------|--------------------|
|----------|------|----------------------------|---------------------------|--------------------------|--------------------------------|---------------------------------|---------------------------------|------------------------------|--------------------|

RHODE ISLAND

| | | | | | | | | | |
|---|----|--------------------|--|--|---|---|--|--|-----------------|
| RIZ001-003>005-007 Northwest Providence - Western Kent - Eastern Kent - Bristol - Newport | | | | | | | | | |
| | 16 | 1700EST 2200EST | | | 0 | 0 | | | Strong Wind |
| RIZ002-006 Southeast Providence - Washington | | | | | | | | | |
| | 16 | 1723EST 2200EST | | | 0 | 0 | | | High Wind (G50) |
| Kent County | | | | | | | | | |
| Warwick | | | | | | | | | |
| | 16 | 2232EST | | | 0 | 0 | | | Flood |
| | 17 | 1345EST | | | | | | | |
| Pawtuxet River | | | | | | | | | |
| Providence County | | | | | | | | | |
| Cranston | | | | | | | | | |
| | 16 | 2232EST | | | 0 | 0 | | | Flood |
| | 17 | 1345EST | | | | | | | |
| Pawtuxet River | | | | | | | | | |

Tropical Storm Floyd brought high winds and torrential rainfall to Rhode Island, as it tracked from northern Connecticut into central and northeast Massachusetts. Although many areas received strong winds, the highest wind gusts were confined to coastal Washington County, where several trees were downed in Westerly, and also in northern Providence County, where branches, trees, and wires were downed in Smithfield, Woonsocket, and Cumberland.

Widespread rainfall amounts of 2 to 5 inches were reported throughout the Ocean State, with the heaviest amounts falling across the higher terrain of northwest Providence County. As much as 7.12 inches of rain fell in North Smithfield. The torrential rainfall caused the Pawtuxet River to rise out of its banks in Warwick and Cranston. The Pawtuxet went into flood at 1132 pm on the 16th, and crested at 9.4 feet at 515 am on the 17th, just over its 9 foot flood stage. It returned to its banks at 245 pm on the 17th. No flood damage was reported, including throughout the rest of Rhode Island where flooding of low lying areas was common.

| | | | | | | | | | |
|---|----|--------------------|--|--|---|---|--|--|-------------|
| RIZ003>007 Western Kent - Eastern Kent - Bristol - Washington - Newport | | | | | | | | | |
| | 30 | 0900EST 1400EST | | | 0 | 0 | | | Strong Wind |

Strong south winds developed across portions of Rhode Island ahead of an approaching cold front. The strongest winds were felt along the coast, where Block Island reported sustained winds over 30 mph. The only wind damage reported was an isolated tree down in Warwick.